

Wider Warfarin Use Needed for Atrial Fibrillation

BY MITCHEL L. ZOLER
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BOSTON — Physicians must be more aggressive in the way they use warfarin to treat patients with atrial fibrillation, even if most fibrillation episodes are of relatively short duration.

"If a patient with atrial fibrillation has risk factors for stroke, I recommend that they take warfarin unless there is a strong reason not to" and even when the fibrillation episodes are short duration, Dr. Albert L. Waldo said at an international symposium on atrial fibrillation sponsored by Massachusetts General Hospital. Patients who usually have fibrillation episodes of just a few minutes can also have episodes that sometimes last several hours, he noted, and even short episodes can produce a clot.

"How long does it take blood to clot?" said Dr. Waldo, professor of cardiology and medicine at Case Western Reserve University in Cleveland.

Despite the importance of oral anticoagulation for patients with atrial fibrillation, many patients never get warfarin treatment. Dr. Waldo cited evidence that he and his associates recently compiled by reviewing the records of 945 atrial fibrilla-

tion patients who were treated at 38 hospitals in 28 states. All hospitals participated in the National Anticoagulation Benchmark and Outcomes Report program.

Patients were seen during 2002 at 37 hospitals and during July 2000–December 2002 at 1 hospital. In 2001, the most recent guidelines for management of atrial fibrillation were published by the American College of Cardiology, the American Heart Association, and the European Society of Cardiology; these guidelines highlighted the need for warfarin treatment in virtually all atrial fibrillation patients, especially those at high stroke risk.

Among the 814 patients reviewed who met the criteria for having a high risk of stroke, 45% did not receive warfarin (and 25% received aspirin but no warfarin). Warfarin was also withheld from 46% of the moderate-risk patients and from 60% of low-risk patients.

The records were also reviewed for reasons these patients were considered to have high bleeding risk and therefore did

not get warfarin. No explanation was found in the records of 43% of the patients not on warfarin. A risk for falls was cited for 42%—"not a good reason to withhold warfarin," according to Dr. Waldo. Other reasons were neuropsychiatric impairment, a past bleeding episode, or peptic ulcer disease.

The patients with the highest risk of stroke were those with a history of stroke, transient ischemic attack, or systemic embolic event. Of the 196 patients in this group, 39% received no warfarin (21% received aspirin but no warfarin).

Age is another risk factor for stroke. In the analysis, 48% of patients aged 75 or older did not get warfarin, a striking divergence from the treatment guidelines, which call for warfarin for all patients in this age group.

"Many physicians base warfarin treatment on their own impressions and intuition rather than on the guidelines," Dr. Waldo said at the symposium, also sponsored by the Academy of Health Care Education.

Significant predictors of warfarin use were assessed in a logistic-regression model. In this analysis, a perceived or actual bleeding risk reduced the likelihood that a patient would get warfarin by about 28%, and age older than 80 years reduced use of warfarin by about 34%. Patients with persistent or permanent atrial fibrillation were 80% more likely to get warfarin, and those with a history of a stroke, transient ischemic attack, or embolic event were 59% more likely to get warfarin.

Catheter ablation of atrial fibrillation cannot be presumed to eliminate a patient's risk of stroke and need for oral anticoagulation, because a significant number of patients have recurrences following ablation, Dr. Waldo said. He recently sent a survey to 353 physicians who treat patients with atrial fibrillation; most of the physicians were members of the Heart Rhythm Society. He received 151 replies, of which 134 were from physicians who perform catheter ablations.

Virtually all responders said they would eventually stop treatment with warfarin in patients with no other risk factors for stroke. The time frame for stopping treatment varied, but most responders said they would halt warfarin if no recurrences appeared by 6 months after treatment. ■

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Tailored Approach Is Best for Ablation Of Trigger Sites in Atrial Fibrillation

BY MITCHEL L. ZOLER
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BOSTON — A tailored approach to catheter ablation of atrial fibrillation is better than using a standard lesion set in all patients.

The basic tenets underlying a tailored strategy are that all atrial fibrillation is not the same, the less ablation the better, and a "one size fits all" approach would mean that some patients get more ablation than they need and others don't get enough, Dr. Fred Morady said at an international symposium on atrial fibrillation sponsored by Massachusetts General Hospital.

Other important rationales for an individualized approach to catheter ablation is that it's possible to identify the important triggers and drivers of atrial fibrillation in each patient, and that the end point of treatment in the electrophysiology lab is to treat until fibrillation is no longer inducible and no longer triggered by a dose of isoproterenol. Also, individualized treatment can help reduce ablations near the esophagus and thereby avoid damage that can lead to fistula formation, said Dr. Morady, professor of internal medicine and director of the clinical electrophysiology laboratory at the University of Michigan, Ann Arbor.

The algorithm that Dr. Morady and his associates use starts with inducing atrial fibrillation in the electrophysiology lab, using isoproterenol if needed. He also has the patient swallow a barium solution so the esophagus can be visualized during the procedure.



For patients with chronic atrial fibrillation, 'a limited amount of ablation can have a dramatic effect.'

DR. MORADY

The obvious place to start assessing fibrillation triggers is to map the pulmonary veins with a lasso catheter and isolate any culprit pulmonary veins. If the fibrillation persists, the next step is to hunt for complex electrograms, either rapid or fractionated. These might be in the left atrial roof or septum, the coronary sinus, the superior vena cava, or the right atrium.

In patients with paroxysmal fibrillation, the end point for ablation is no spontaneous fibrillation, and no inducible fibrillations that last more than a minute after five attempted inductions. For patients with chronic fibrillation, the goal is to eliminate any pulmonary vein

triggers and to ablate all ECG-guided culprit sites. "A limited amount of ablation can have a dramatic effect," Dr. Morady said at the symposium, also sponsored by the Academy for Healthcare Education.

Dr. Morady and his associates have used the tailored approach to treat 153 patients since they began the strategy in 2004. At least one pulmonary vein trigger was found in every patient. In addition, complex ECGs were seen in the left atrium in 69% of patients, in the coronary sinus in 46%, and in the superior vena cava in 6%. (Some patients had more than one complex ECG.)

The average time for each procedure was 201 minutes, and the average time spent ablating trigger sites was 32 minutes. Fibrillation was rendered uninducible in 58%. Left atrial flutter occurred in 19%, although this later resolved in half of these patients. Repeat ablations were performed in 18% of patients.

Among the patients who were uninducible after treatment, 88% remained free from fibrillations after an average follow-up of 11 months. Among those who remained inducible, new fibrillation episodes occurred in 35% during follow-up. About two-thirds of the patients had chronic atrial fibrillation, and in this subgroup the fibrillation was terminated and sinus rhythm was restored in 54%. ■

Hypothermia Improved Cardiac Arrest Outcomes

SAN FRANCISCO — Therapeutic hypothermia after cardiac arrest appears to be of particular benefit in patients with ventricular fibrillation and those with a short duration of circulatory arrest, according to a poster presented by Dr. Mauro Oddo at the annual congress of the Society of Critical Care Medicine.

In the retrospective study of 109 consecutive patients admitted for out-of-hospital cardiac arrest, a significantly larger proportion of patients treated with hypothermia were able to return home and live independently than of those treated with normothermia.

Among 86 patients admitted with ventricular fibrillation (VF) as the initial rhythm, 24 of 43 (56%) treated with standard postresuscitation care together with hypothermia achieved this outcome, compared with 11 of 43 (26%) treated only with standard postresuscitation care.

The induced hypothermia was mild, wrote Dr. Oddo and his colleagues from University Hospital, Lausanne, Switzerland. The cooling process was external, involving ice bags and a cooling mattress to achieve a target internal temperature of 33° C for 24 hours. Outcomes for the 23 patients admitted with non-VF rhythms tended to be very poor whether or not they were treated with hypothermia. Only three of these patients survived. The two patients treated with hypothermia achieved total recovery, and the one who received only standard treatment was left with severe disability. This trend was not statistically significant.

Hypothermia appeared to provide significant benefit to patients in shock. Of the 17 patients admitted with shock and treated with hypothermia, 5 (29%) were able to return home and live independently, compared with none of the 14 patients in shock who were treated with normothermia.

A multivariate regression analysis revealed two independent predictors of good outcome: shorter time from collapse to return of spontaneous circulation (ROSC) and the application of hypothermia. The model predicted that the greatest benefit of hypothermia would be seen in patients whose time to ROSC was relatively short—10-30 minutes.

—Robert Finn